

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/020,716

DATE: 02/27/98
TIME: 18:53:25

INPUT SET: S23914.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

SEQUENCE LISTING

(1) General Information

(i) APPLICANT: Jung, Rudolf
Beach, Larry R.
Dress, Virginia M.
Rao, A. Gururaj
Ranch, Jerome P.
Ertl, David S.
Higgins, Regina K.

(ii) TITLE OF THE INVENTION: Alteration of Amino Acid Compositions
in Seeds

(iii) NUMBER OF SEQUENCES: 13

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Pioneer Hi-Bred International, Inc.
(B) STREET: 7100 NW 62nd Avenue, P.O. Box 1000
(C) CITY: Johnston
(D) STATE: IA
(E) COUNTRY: USA
(F) ZIP: 50131

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Diskette
(B) COMPUTER: IBM Compatible
(C) OPERATING SYSTEM: DOS
(D) SOFTWARE: FastSEQ for Windows Version 2.0

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER:
(B) FILING DATE:
(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER:
(B) FILING DATE:

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Michel, Marianne H
(B) REGISTRATION NUMBER: 35,286
(C) REFERENCE/DOCKET NUMBER: 0815

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/020,716DATE: 02/27/98
TIME: 18:53:29

INPUT SET: S23914.raw

47
48 (ix) TELECOMMUNICATION INFORMATION:
49 (A) TELEPHONE: 515-334-4467
50 (B) TELEFAX: 515-334-6883
51 (C) TELEX:
52
53
54 (2) INFORMATION FOR SEQ ID NO:1:
55
56 (i) SEQUENCE CHARACTERISTICS:
57 (A) LENGTH: 3363 base pairs
58 (B) TYPE: nucleic acid
59 (C) STRANDEDNESS: single
60 (D) TOPOLOGY: linear
61
62 (ii) MOLECULE TYPE: Other
63
64 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
65
66 TCGACCTCGA GGGGGGGCCC GGTACCCAGC TTTTGTTCCT TTTAGTGAGG GTTAATTGCG 60
67 CGCTTGGCGT AATCATGGTC ATAGCTGTTT CCTGTGTGAA ATTGTTATCC GCTCACAATT 120
68 CCACACAACA TACGAGCCGG AAGCATAAAG TGTAAGCCCT GGGGTGCCTA ATGAGTGAGC 180
69 TAACTCACAT TAATTGCGTT GCGCTCACTG CCCGCTTTCC AGTCGGGAAA CCTGTCGTGC 240
70 CAGCTGCATT AATGAATCGG CCAACGCGCG GGGAGAGGCG GTTTGCGTAT TGGGCGCTCT 300
71 TCCGCTTCCT CGCTCACTGA CTCGCTGCGC TCGGTCTGTT GGCTGCGGCG AGCGGTATCA 360
72 GCTCACTCAA AGGCGGTAAT ACGGTTATCC ACAGAATCAG GGGATAACGC AGGAAAAGAAC 420
73 ATGTGAGCAA AAGGCCAGCA AAAGGCCAGG AACCGTAAAA AGGCCGCGTT GCTGGCGTTT 480
74 TTCCATAGGC TCCGCCCCC TGACGAGCAT CACAAAAATC GACGCTCAAG TCAGAGGTGG 540
75 CGAAACCCGA CAGGACTATA AAGATACCAG GCGTTTCCCC CTGGAAGCTC CCTCGTGCGC 600
76 TCTCCTGTTT CGACCCTGCC GCTTACCGGA TACCTGTCCG CCTTCTCTCC TTCGGGAAGC 660
77 GTGGCGCTTT CTCATAGCTC ACGCTGTAGG TATCTCAGTT CGGTGTAGGT CGTTCGCTCC 720
78 AAGCTGGGCT GTGTGCACGA ACCCCCCGTT CAGCCCGACC GCTGCGCCTT ATCCGGTAAC 780
79 TATCGTCTTG AGTCCAACCC GGTAAGACAC GACTTATCGC CACTGGCAGC AGCCACTGGT 840
80 AACAGGATTA GCAGAGCGAG GTATGTAGGC GGTGCTACAG AGTTCTTGAA GTGGTGCCCT 900
81 AACTACGGCT ACACTAGAAG GACAGTATTT GGTATCTGCG CTCTGCTGAA GCCAGTTACC 960
82 TTCGAAAAAA GAGTTGGTAG CTCTTGATCC GGCAAAACAA CCACCGCTGG TAGCGGTGGT 1020
83 TTTTTTGTTC GCAAGCAGCA GATTACGCGC AGAAAAAAG GATCTCAAGA AGATCCTTTG 1080
84 ATCTTTTCTA CGGGGTCTGA CGCTCAGTGG AACGAAAAC CACGTTAAGG GATTTTGGTC 1140
85 ATGAGATTAT CAAAAAGGAT CTTACCTAG ATCCTTTTAA ATTAAAAATG AAGTTTAAAA 1200
86 TCAATCTAAA GTATATATGA GTAAACTTGG TCTGACAGTT ACCAATGCTT AATCAGTGAG 1260
87 GCACCTATCT CAGCGATCTG TCTATTTCTG TCATCCATAG TTGCCTGACT CCCCCTCGTG 1320
88 TAGATAACTA CGATACGGGA GGGCTTACCA TCTGGCCCCA GTGCTGCAAT GATACCGCA 1380
89 GACCCACGCT CACCGGCTCC AGATTTATCA GCAATAAACC AGCCAGCCGG AAGGGCCGAG 1440
90 CGCAGAAGTG GTCCTGCAAC TTTATCCGCC TCCATCCAGT CTATTAATTG TTGCCGGGAA 1500
91 GCTAGAGTAA GTAGTTTCGCC AGTTAATAGT TTGCGCAACG TTGTTGCCAT TGCTACAGGC 1560
92 ATCGTGGTGT CACGCTCGTC GTTTGGTATG GCTTCATTCA GCTCCGGTTC CCAACGATCA 1620
93 AGGCGAGTTA CATGATCCCC CATGTTGTGC AAAAAAGCGG TTAGCTCCTT CGGTCTCCG 1680
94 ATCGTTGTCA GAAGTAAGTT GGCCGCAAGT TTATCACTCA TGGTTATGGC AGCACTGCAT 1740
95 AATTCTCTTA CTGTATGACC ATCCGTAAGA TGCTTTTCTG TGAAGGTGTA GTACTCAACC 1800
96 AAGTCATTCT GAGAATAGTG TATGCGGCGA CCGAGTTGCT CTTGCCCCGG GTCAATACGG 1860
97 GATAATACCG CGCCACATAG CAGAACTTTA AAAGTGCTCA TCATTGAAAA ACCTTCTTCG 1920
98 GGGCGAAATC TCTCAAGGAT CTTACCGCTG TTGAGATCCA ACCCACTCGT 1980
99 GCACCCAAC TATCTTCAGC ATCTTTTACT TTCACCAGCG TTTCTGGGTG AGCAAAAAACA 2040

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/020,716DATE: 02/27/98
TIME: 18:53:32

INPUT SET: S23914.raw

100	GGAAGGCAAA	ATGCCGCAAA	AAAGGGAATA	AGGGCGACAC	GGAAATGTTG	AATACTCATA	2100
101	CTCTTCCTTT	TTCAATATTA	TTGAAGCATT	TATCAGGGTT	ATTGTCTCAT	GAGCGGATAC	2160
102	ATATTTGAAT	GTATTTAGAA	AAATAAACAA	ATAGGGGTTT	CGCGCACATT	TCCCCGAAAA	2220
103	GTGCCACCTA	AATTGTAAGC	GTTAATATTT	TGTTAAAAAT	CGCGTTAAAT	TTTTGTAAAA	2280
104	TCAGCTCATT	TTTTAACCAA	TAGGCCGAAA	TCGGCAAAAT	CCCTTATAAA	TCAAAAAGAAT	2340
105	AGACCGAGAT	AGGGTTGAGT	GTTGTTCCAG	TTTGGAAACAA	GAGTCCACTA	TTAAAGAACG	2400
106	TGGACTCCAA	CGTCAAAGGG	CGAAAAACCG	TCTATCAGGG	CGATGGCCCA	CTACGTGAAC	2460
107	CATCACCCTA	ATCAAGTTTT	TTGGGGTCTGA	GGTGCCGTAA	AGCACTAAAT	CGGAACCCTA	2520
108	AAGGGAGCCC	CCGATTTAGA	GCTTGACGGG	GAAAGCCGGC	GAACGTGGCG	AGAAAGGAAG	2580
109	GGAAGAAAGC	GAAAGGAGCG	GGCGCTAGGG	CGCTGGCAAG	TGTAGCGGTC	ACGCTGCGCG	2640
110	TAACCACCAC	ACCCGCCGCG	CTTAATGCGC	CGCTACAGGG	CGCGTCCCAT	TCGCCATTCA	2700
111	GGCTGCGCAA	CTGTTGGGAA	GGCGATCCGG	TGCGGGCCTC	TTGCTATTA	CGCCAGCTGG	2760
112	CGAAAGGGGG	ATGTGCTGCA	AGGCGATTAA	GTTGGGTAAC	GCCAGGGTTT	TCCCAGTCAC	2820
113	GACGTTGTAA	AACGACGGCC	AGTGAGCGCG	CGTAATACGA	CTCACTATAG	GGCGAATTGG	2880
114	AGCTCCACCG	CGGTGGCGGC	CGCTCTAGAA	CTAGTGGATC	CGTCGACTAG	AGGGCCCGAC	2940
115	GTCGAACTTA	GGCACTAAGG	GATGTGAGGC	CAGCATCACC	GTTGCAGAAA	TTGACACAAG	3000
116	CATCACCACA	ATTTTCCAAA	TAGAGTTTCA	TTTCTTCGTC	GTCAGCAGCT	GCGTTGACCA	3060
117	TGTAGTCACA	CATGGAAGCC	CTACACCCCA	AGTTGCAATA	CTTGACGGTG	TCTGGTTTCAT	3120
118	CTGAGTTGGA	CACAAGGGCC	AATTTGGGGA	AGCCTGTAGG	GCATTTTCCG	CTACTTGTGA	3180
119	GTTTACACCT	ACAGACGCCT	GCGCATAACT	TCTGAGCACC	ACGGACGCGG	CAAAGGTTGT	3240
120	AGCAGTTTCT	TCCTAGGGTG	CTCCTGCAGC	AACTCTTGCC	TTCTACTTGC	ACCTGTTCGA	3300
121	GAACCAACCC	CAGTATAAGT	AAACACACCA	TCACACCCTT	GAGGCCCTTG	CTGGTGGCCA	3360
122	TGG						3363

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3365 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

136	TCGACCTCGA	GGGGGGGGCCC	GGTACCCAGC	TTTTGTTCCC	TTTAGTGAGG	GTTAATTGCG	60
137	CGCTTGGCGT	AATCATGGTC	ATAGCTGTTT	CCTGTGTGAA	ATTGTTATCC	GCTCACAATT	120
138	CCACACAACA	TACGAGCCGG	AAGCATAAAG	TGTAAAGCCT	GGGGTGCCTA	ATGAGTGAGC	180
139	TAATCACAAT	TAATTGCGTT	GCGCTCACTG	CCCGCTTTCC	AGTCGGGAAA	CCTGTCGTGC	240
140	CAGCTGCATT	AATGAATCGG	CCAACGCGCG	GGGAGAGGCG	GTTTGCATAT	TGGGCGCTCT	300
141	TCCGCTTCCT	CGCTCACTGA	CTCGCTGCGC	TCGGTTCGTT	GGCTGCGGCG	AGCGGTATCA	360
142	GCTCACTCAA	AGGCGGTAAT	ACGGTTATCC	ACAGAATCAG	GGGATAACGC	AGGAAAGAAC	420
143	ATGTGAGCAA	AAGGCCAGCA	AAAGGCCAGG	AACCGTAAAA	AGGCCGCGTT	GCTGGCGTTT	480
144	TTCCATAGGC	TCCGCCCCCC	TGACGAGCAT	CACAAAAATC	GACGCTCAAG	TCAGAGGTGG	540
145	CGAAACCCGA	CAGGACTATA	AAGATACCGA	GCGTTTCCCC	CTGGAAGCTC	CCTCGTGC GC	600
146	TCTCCTGTTT	CGACCCTGCC	GCTTACCGGA	TACCTTGCCG	CCTTTCTCCC	TTCGGGAAGC	660
147	GTGGCGCTTT	CTCATAGCTC	ACGCTGTAGG	TATCTCAGTT	CGGTGTAGGT	CGTTCGCTCC	720
148	AAGCTGGGCT	GTGTGCACGA	ACCCCCGTT	CAGCCCGACC	GCTGCGCCTT	ATCCGGTAAC	780
149	TATCGTCTTG	AGTCCAACCC	GGTAAGACAC	GACTTATCGC	CACTGGCAGC	AGCCACTGGT	840
150	AACAGGATTA	GCAGAGCGAG	GTATGTAGGC	GGTGCTACAG	AGTTCTTGAA	GTGGTGCCCT	900
151	AACTACGGCT	ACACTAGAAG	GACAGTATTT	GGTATCTGCG	CTCTGCTGAA	GCCAGTTACC	960
152	TTCGGAAAAA	GAGTTGGTAG	CTCTTGATCC	GGCAACAAAA	CCACCGCTGG	TAGCGGTGGT	1020

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/020,716DATE: 02/27/98
TIME: 18:53:35

INPUT SET: S23914.raw

153	TTTTTTGTTT	GCAAGCAGCA	GATTACGCGC	AGAAAAAAG	GATCTCAAGA	AGATCCTTTG	1080
154	ATCTTTTCTA	CGGGGTCTGA	CGCTCAGTGG	AACGAAAACT	CACGTTAAGG	GATTTTGGTC	1140
155	ATGAGATTAT	CAAAAAGGAT	CTTCACCTAG	ATCCTTTTAA	ATTAAAAATG	AAGTTTAAAA	1200
156	TCAATCTAAA	GTATATATGA	GTAAACTTGG	TCTGACAGTT	ACCAATGCCT	AATCAGTGAG	1260
157	GCACCTATCT	CAGCGATCTG	TCTATTTTCGT	TCATCCATAG	TTGCCTGACT	CCCCGTCGTG	1320
158	TAGATAACTA	CGATACGGGA	GGGCTTACCA	TCTGGCCCCA	GTGCTGCAAT	GATACCGCGA	1380
159	GACCCACGCT	CACCGGCTCC	AGATTTATCA	GCAATAAACC	AGCCAGCCGG	AAGGGCCGAG	1440
160	CGCAGAAGTG	GTCTTGCAAC	TTTATCCGCC	TCCATCCAGT	CTATTAATTG	TTGCCGGGAA	1500
161	GCTAGAGTAA	GTAGTTCGCC	AGTTAATAGT	TTGCGCAACG	TTGTTGCCAT	TGCTACAGGC	1560
162	ATCGTGGTGT	CACGCTCGTC	GTTTGGTATG	GCTTCATTCA	GCTCCGGTTC	CCAACGATCA	1620
163	AGGCGAGTTA	CATGATCCCC	CATGTTGTGC	AAAAAAGCGG	TTAGCTCCTT	CGGTCTCCCG	1680
164	ATCGTTGTCA	GAAGTAAGTT	GGCCGAGTGG	TTATCACTCA	TGGTTATGGC	AGCACTGCAT	1740
165	AATTCTCTTA	CTGTCTATGCC	ATCCGTAAGA	TGCTTTTCTG	TGACTGGTGA	GTACTCAACC	1800
166	AAGTCATTCT	GAGAATAGTG	TATGCGGCGA	CCGAGTTGCT	CTTGCCCGGC	GTCAATACGG	1860
167	GATAATACCG	CGCCACATAG	CAGAACTTTA	AAAGTGCTCA	TCATTGGAAA	ACGTCTTTCG	1920
168	GGGCGAAAAC	TCTCAAGGAT	CTTACCGCTG	TTGAGATCCA	GTTGATGTA	ACCCACTCGT	1980
169	GCACCCAAC	GATCTTCAGC	ATCTTTTACT	TTCACCAGCG	TTTCTGGGTG	AGCAAAAACA	2040
170	GGAAGGCAAA	ATGCCGCAAA	AAAGGGAATA	AGGGCGACAC	GGAAATGTTG	AATACTCATA	2100
171	CTCTTCCTTT	TTCAATATTA	TTGAAGCAT	TATCAGGGTT	ATTGTCTCAT	GAGCGGATAC	2160
172	ATATTTGAAT	GTATTTAGAA	AAATAAACAA	ATAGGGGTTT	CGCGCACATT	TCCCCGAAAA	2220
173	GTGCCACCTA	AATTGTAAAGC	GTTAATATTT	TGTTAAAAAT	CGCGTTAAAT	TTTTGTAAAA	2280
174	TCAGCTCATT	TTTTAACC	TAGGCCGAAA	TCGGCAAAAT	CCCTTATAAA	TCAAAAGAAT	2340
175	AGACCGAGAT	AGGGTTGAGT	GTTGTTCCAG	TTTGGAAACA	GAGTCCACTA	TTAAAGAACG	2400
176	TGGACTCCAA	CGTCAAAGGG	CGAAAAACCG	TCTATCAGGG	CGATGGCCCA	CTACGTGAAC	2460
177	CATCACCCTA	ATCAAGTTTT	TTGGGGTCTGA	GGTGCCGTAA	AGCACTAAAT	CGGAACCCCTA	2520
178	AAGGGAGCCC	CCGATTTAGA	GCTTGACGGG	GAAAGCCGGC	GAACGTGGCG	AGAAAGGAAG	2580
179	GGAAGAAAGC	GAAAGGAGCG	GGCGCTAGGG	CGCTGGCAAG	TGTAGCGGTC	ACGCTGCGCG	2640
180	TAACCACCAC	ACCCGCCGCG	CTTAATGCGC	CGCTACAGGG	CGCGTCCCAT	TCGCCATTCA	2700
181	GGCTGCGCAA	CTGTTGGGAA	GGGCGATCGG	TGCGGGCCCTC	TTGCTATTA	CGCCAGCTGG	2760
182	CGAAAGGGGG	ATGTGCTGCA	AGGCGATTAA	GTTGGGTAAC	GCCAGGGTTT	TCCCAGTCAC	2820
183	GACGTTGTAA	AACGACGGCC	AGTGAGCGCG	CGTAATACGA	CTCACTATAG	GGCGAATTGG	2880
184	AGCTCCACCG	CGGTGGCGGC	CGCTCTAGAA	CTAGTGGATC	CGTCGACTAG	AGGGCCCGAC	2940
185	GTCGAACTTA	GGCACTAAGG	GATGTGAGGC	CAGCATCACC	GTTGCAGAAA	TTGACACAAG	3000
186	CATCACCACA	ATTTTCCAAA	TAGAGTTTCA	TTTCTTTCGT	GTCAGCAGCT	GCCTTGACCA	3060
187	TGTAGTCACA	CATGGAAGCC	CTACACCCCA	AGTTGCAATA	CTTGACGGTG	TCTGGTTTCAT	3120
188	CTGAGTTGGA	CACAAGGGCC	AATTTGGGGA	AGCCTTTTCG	GCATTTTCCG	CTACTAGTCA	3180
189	GCTTACACTT	GCAGACGCCT	GCGCAAAGCT	TCTTGGCGCC	TTTGACTTTG	CAAAGGTTGT	3240
190	AGCACTTCCT	TCCCAGGGTA	CTCTTGCAAG	AACTCTTGCC	TTCTACTTGC	ACCTGTTCGA	3300
191	GAACCAACCC	CAGTATAAGT	AAACACACCA	TCACACCCTT	GAGGCCCTTG	CTGGTGGCCA	3360
192	TGGTG						3365

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5360 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: Other

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

RAW SEQUENCE LISTING PATENT APPLICATION US/09/020,716

DATE: 02/27/98
TIME: 18:53:39

INPUT SET: S23914.raw

206	CTAAATTGTA	AGCGTTAATA	TTTTGTAAAA	ATTCGCGTTA	AATTTTGTGT	AAATCAGCTC	60
207	ATTTTTTAAC	CAATAGGCCG	AAATCGGCAA	AATCCCTTAT	AAATCAAAAAG	AATAGACCGA	120
208	GATAGGGTTG	AGTGTGTGTC	CAGTTTGGAA	CAAGAGTCCA	CTATTAAAGA	ACGTGGACTC	180
209	CAACGTCAAA	GGGCGAAAAA	CCGTCTATCA	GGGCGATGGC	CCACTACGTG	AACCATCACC	240
210	CTAATCAAGT	TTTTTGGGGT	CGAGGTGCCG	TAAAGCACTA	AATCGGAACC	CTAAAGGGAG	300
211	CCCCGATTTT	AGAGCTTGAC	GGGAAAAGCC	GGCGAACGTG	GCGAGAAAAG	AAGGGAAGAA	360
212	AGCGAAAGGA	GCGGGCGCTA	GGGCGCTGGC	AAGTGTAGCG	GTCACGCTGC	GCGTAACCAC	420
213	CACACCCGCC	GCGCTTAATG	CGCCGCTACA	GGGCGCGTCC	CATTCGCCAT	TCAGGCTGCG	480
214	CAACTGTTGG	GAAGGGCGAT	CGGTGCGGGC	CTCTTCGCTA	TTACGCCAGC	TGGCGAAAGG	540
215	GGGATGTGCT	GCAAGGCGAT	TAAGTTGGGT	AACGCCAGGG	TTTTCCCAGT	CACGACGTTG	600
216	TAAAACGACG	GCCAGTGAGC	GCGCGTAATA	CGACTCACTA	TAGGGCGAAT	TGGAGCTCCA	660
217	CCGCGGTGGC	GGCCGCTCTA	GATTATATAA	TTTATAAGCT	AAACAACCCG	GCCCTAAAGC	720
218	ACTATCGTAT	CACCTATCTA	AATAAGTCAC	GGGAGTTTCG	AACGTCCACT	TCGTGCGACG	780
219	GAATTGCATG	TTTCTTGTGT	GAAGCATATT	CACGCAATCT	CCACACATAA	AGGTTTATGT	840
220	ATAAACTTAC	ATTTAGCTCA	GTTTAATTAC	AGTCTTATTT	GGATGCATAT	GTATGGTTCT	900
221	CAATCCATAT	AAGTTAGAGT	AAAAAATAAG	TTTAAATTTT	ATCTTAATTC	ACTCCAACAT	960
222	ATATGGATCT	ACAATACTCA	TGTGCATCCA	AACAAACTAC	TTATATTGAG	GTGAATTTGG	1020
223	TAGAAATTAA	ACTAACTTAC	ACACTAAGCC	AATCTTTACT	ATATTAAAGC	ACCAGTTTCA	1080
224	ACGATCGTCC	CGCGTCAATA	TTATTAAAAA	ACTCCTACAT	TTCTTTATAA	TCAACCCGCA	1140
225	CTCTTATAAT	CTCTTCTCTA	CTACTATAAT	AAGAGAGTTT	ATGTACAAAA	TAAGGTGAAA	1200
226	TTATCTATAA	GTGTTCTGGA	TATTGGTTGT	TGGCTCCCAT	ATTCACACAA	CCTAATCAAT	1260
227	AGAAAACATA	TGTTTTATTA	AAACAAAAAT	TATCATATAT	CATATATATA	TATATATCAT	1320
228	ATATATATAT	AAACCGTAGC	AATGCACGGG	CATATAACTA	GTGCAACTTA	ATACATGTGT	1380
229	GTATTAAGAT	GAATAAGAGG	GTATCCAAAT	AAAAAACTTG	TTGCTTACGT	ATGGATCGAA	1440
230	AGGGGTGGA	AACGATTAAA	CGATTAAATC	TCTTCCTAGT	CAAAATTGAA	TAGAAGGAGA	1500
231	TTTAATATAT	CCCAATCCCC	TTCGATCATC	CAGGTGCAAC	CGTATAAGTC	CTAAAGTGGT	1560
232	GAGGAACACG	AAAGAACCAT	GCAATTGGCAT	GTAAAGCTCC	AAGAATTTGT	TGTATCCTTA	1620
233	ACAACTCACA	GAACATCAAC	CAAAATTGCA	CGTCAAGGGT	ATTGGGTAAG	AAACAATCAA	1680
234	ACAAATCCTC	TCGTGTGTGCA	AAGAAACACG	GTGAGTCATG	CCGAGATCAT	ACTCATCTGA	1740
235	TATACATGCT	TACAGCTCAC	AAGACATTAC	AAACAACCTA	TATTGCATTA	CAAGATCGT	1800
236	TTCATGAAAA	ATAAAATAGG	CCGGACAGGA	CAAAAATCCT	TGACGTGTAA	AGTAAATTTA	1860
237	CAACAAAAAA	AAAGCCATAT	GTCAAGCTAA	ATCTAATTCG	TTTTACGTAG	ATCAACAACC	1920
238	TGTAGAAGGC	AACAAAACCTG	AGCCACGCAG	AAGTACAGAA	TGATTCCAGA	TGAACCATCG	1980
239	ACGTGCTACG	TAAAGAGAGT	GACGAGTCAT	ATACATTTGG	CAAGAAACCA	TGAAGCTGCC	2040
240	TACAGCCGTC	TCGGTGGCAT	AAGAACACAA	GAAATTGTGT	TAATTAATCA	AAGCTATAAA	2100
241	TAACGCTCGC	ATGCCTGTGC	ACTTCTCCAT	CACCACCACT	GGGTCTTCAG	ACCATTAGCT	2160
242	TTATCTACTC	CAGAGCGCAG	AAGAACCCGA	TCGACACCAT	GGCCACCAGC	AAGGGCCTCA	2220
243	AGGGTGTGAT	GGTGTGTTTA	CTTATACTGG	GGTTGGTTCT	CGAACAGGTG	CAAGTAGAAG	2280
244	GCAAGAGTTG	CTGCAAGAGT	ACCCTGGGAA	GGAAGTGCTA	CAACCTTTGC	AAAGTCAAAG	2340
245	GCGCCAAGAA	GCTTTGCGCA	GGCGTCTGCA	AGTGTAAGCT	GACTAGTAGC	GGAAAATGCC	2400
246	CGAAAGGCTT	CCCCAAATTG	GCCCTTGTGT	CCAACTCAGA	TGAACCAGAC	ACCGTCAAGT	2460
247	ATTGCAACTT	GGGGTGTAGG	GCTTCCATGT	GTGACTACAT	GGTCAACGCA	GCTGCTGACG	2520
248	ACGAAGAAAT	GAAACTCTAT	TTGGAAAAAT	GTGGTGATGC	TTGTGTCAAT	TTCTGCAACG	2580
249	GTGATGCTGG	CCTCACATCC	CTTAGTGCC	AAGTTCGACG	TCGGGCCCCC	TAGTCGACGG	2640
250	ATCCCCGGCG	GTGTCCCCCA	CTGAAGAAAC	TATGTGCTGT	AGTATAGCCG	CTGCCCCGCTG	2700
251	GCTAGCTAGC	TAGTTGAGTC	ATTTAGCGGC	GATGATTGAG	TAATAATGTG	TCAAGTCATCA	2760
252	CCATGCATGG	GTGGCAGTGT	CAGTGTGAGC	AATGACCTGA	ATGAACAATT	GCAAGTAAAA	2820
253	GAaaaaagta	TTGTTCCAAA	TTAAACGTTT	TAACCTTTTA	ATAGGTTTAT	ACAATAATTG	2880
254	ATATATGTTT	TCTGTATATG	TCTAATTTGT	TATCATCCAT	TTAGATATAG	ACAAAAAATA	2940
255	ATCTAAGAAC	TAAAACAAAT	GCTAATTTGA	AATGAAGGGA	GTATATATTG	GGATAATGTC	3000
256	GATGAGATCC	CTCGTAATAT	CACCGACATC	ACACGTGTCC	AGTTAATGTA	TCAGTGATAC	3060
257	GTGTATTAC	ATTTGTTGCG	CGTAGGCGTA	CCCAACAATT	TTGATCGACT	ATCAGAAAGT	3120
258	CAACGGAAGC	GAGTCGACCT	CGAGGGGGGG	CCCGGTACCC	AGCTTTTGT	CCCTTTAGTG	3180